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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/981,202

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Darren J. Cepulis

1662-49500 JMH  
(P98-2413)

5767

22879

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01/11/2005

EXAMINER

KNAPP, JUSTIN R

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 01/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/981,202

Applicant(s)

CEPULIS, DARREN J.

Examiner

Justin Knapp

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-6,8,10,11 and 13-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-6,8,10,11 and 13-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Examiner Notes*

1. After Final Amendment as received 09/21/04 is entered.
2. The finality of the previous Office Action is withdrawn in light of the new rejections.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 2, 4, 8, 10, 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Nunn, USPN 6,317,828.
5. Referring to claim 4, Nunn teaches a computer system comprising:  
a CPU (figure 1, element 103);  
system memory coupled to said CPU (figure 1, element 105) ;  
a system ROM containing system ROM code executable by said CPU (figure 1, element 113);  
an option device coupled to said CPU (figure 1, elements 120 and 122); and  
option ROM code associated with said option device (figure 1, elements 120 and 122);  
wherein said system ROM code permits an operator to execute said option ROM code. A BIOS ROM setup code enables the user to control the order of bootable drives that are connected to adapters with option ROMs. An operator permits option ROM code of an adapter execute when

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a drive it is connected to is configured as a bootable drive in the BIOS setup (see figure 2, column 3 through column 5).

Nunn also teaches wherein said system ROM code permits an operator to execute said option ROM code and wherein said system ROM code searches for a predefined signature value when an operator selects an option ROM code to execute, said signature value identifies information pertaining to the location of the option ROM code (see column 3, lines 8-15, BCVS are pointers in the Expansion Headers that point to code in the device's option ROM).

6. Referring to claim 2, Nunn teaches wherein said option ROM code is resident on said option device (figure 1, elements 120 and 122).

7. Referring to claim 8, Nunn teaches:

a) configuring one or more aspects of a computer system using system ROM code (figure 1, element 113, Nunn's system has a BIOS ROM setup to configure the system) ;

b) permitting an operator to select an option device coupled to said computer system to be configured using said system ROM code (column 4, various option devices are able to be selected as bootable so they are configured as bootable using the system ROM); and

c) searching for an option ROM code associated with said option device using said system ROM code (column 4, figure 2); and

d) executing said option ROM code (column 4, figure 2).

Furthermore, Nunn teaches wherein searching for an option ROM code includes searching for a predefined value that indicates the location of a set of information, said set of information includes a location value that is used to determine the location of the option ROM code. During option ROM scanning operating codes are loaded into memory that contain expansion header

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information that contains location values for the option ROM codes (column 3 and column 4, lines 38-45).

Lastly, Nunn teaches wherein said set of information also includes a device identifier and wherein searching for an option ROM code further includes comparing a device identifier associated with the option device the operator wishes to configure to the device identifier in the set of information (see column 4, lines 45-end, BCV information is containing device identifiers is compared; if BCV is equal to 1 in logic operation, another BCV is found and the BCV is stored in a list for the controllable devices).

8. Referring to claim 10, Nunn teaches wherein executing said option ROM includes transferring execution to said location if the device identifiers match (column 4, line 58 through column 5, line 13).

9. Referring to claim 11, Nunn teaches further including returning to said system ROM code after said option code completes executing. At the end of option ROM initialization and execution, the system returns to the BIOS.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 5, 13, 14, 16, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nunn.

12. Referring to claim 5, Nunn does not explicitly teach wherein said signature corresponds to an option ROM configuration entry table, said table includes location values regarding the location of the option ROM code and a device identifier value. However, Nunn does teach a call function is executed in which each adapter with a valid option ROM has associated operating code loaded into a specified section of memory space. During adapter code loading, expansion header information is saved (which has the information used to configure the device connected through each adapter as well as pointers to locate the information for the option ROMs) and linked expansion headers are stored (column 4, lines 38-45 and column 3, lines 5-15). Although, Nunn does not explicitly teach a “configuration entry table”, the information from expansion headers loaded into a memory space is essentially configuration data. It would have been obvious to one of ordinary skill in the art at the time the invention was made that configuration entry data whether in a table or another format, the data would be loaded into a memory space for use as taught by Nunn.

13. Referring to claim 16, Nunn teaches an instruction that permits an operator to configure a computer system (column 3, lines 54-62).

However, Nunn does not explicitly teach an instruction that permits an operator to configure one or more option devices within the computer system and to search for an option ROM configuration table corresponding to the option device the operator selects to configure.

However, Nunn does teach a call function is executed in which each adapter with a valid option ROM has associated operating code loaded into a specified section of memory space. During adapter code loading, expansion header information is saved (which has the information used to configure the device connected through each adapter as well as pointers to locate the information

for the option ROMs) and linked expansion headers are stored (column 4, lines 38-45 and column 3, lines 5-15). Although, Nunn does not explicitly teach a "configuration entry table", the information from expansion headers loaded into a memory space is essentially configuration data for a device the operator elects to configure. It would have been obvious to one of ordinary skill in the art at the time the invention was made that configuration entry data whether in a table or another format, the data would be loaded into a memory space for use as taught by Nunn.

14. Referring to claim 13, Nunn teaches further including an instruction which causes an option ROM code associated with an option device to be executed (as taught herein above in rejection of claim 4).

15. Referring to claim 14, Nunn teaches wherein said option ROM code is resident on said option device (as taught herein above in rejection of claim 2).

16. Referring to claim 19, Nunn teaches further including an instruction which compares a device identifier obtained from the operator's selection of a device to be configured to the device identifier in said table (as taught herein above in rejection of claim 8).

17. Claims 3 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nunn in view of Zimmer, US Pub 2003/0097581. Nunn does not explicitly teach wherein said option ROM code is copied to and executed from system memory. Nunn does teach a typical adapter device having an option ROM is a SCSI controller. Zimmer teaches that under the prior art, an option ROM is loaded by BIOS into memory and executed (see [0056]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to copy and execute option ROM code to system memory in the system of Nunn as taught by the prior art of Zimmer as it is well known in the art to perform such function.

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18. Claims 6, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nunn in view of BIOS Boot Specification, Version 1.01 (1996). Nunn does not explicitly teach wherein said table further includes: a mask value that permits multiple types of option devices to use the option ROM code pertaining to a single table, offset and segment values to the beginning of an option ROM code associated with said option device, or a device identifier which corresponds to said option device. However, BIOS Boot Specification Version 1.01 teaches the above (pages 32 and 33). It would have been obvious to one of ordinary skill in the art at the time the invention was made that the BIOS Boot Specification applies to the system of Nunn as Nunn specifically teaches the application of the BIOS Boot Spec (column 1, lines 45-63) in her system.

### *Conclusion*

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Knapp whose telephone number is (571) 272-4149. The examiner can normally be reached on Mon - Fri 8:30 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on (571) 272-4146. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Justin Knapp  
Examiner  
Art Unit 2182

December 23, 2004



JEFFREY GAFFIN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100